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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/669,958	09/26/2000	John E. Bjorkholm	IL-10660	5131

7590

08/26/2002

L E Carnahan  
Patent Agent  
Lawrence Livermore National Laboratory  
P O Box 808 L 703  
Livermore, CA 94551

EXAMINER

YOUNG, CHRISTOPHER G

ART UNIT	PAPER NUMBER
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1756

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DATE MAILED: 08/26/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/669,958

Applicant(s)

Bjorkholm et al.

Examiner

Young

Group Art Unit

1756

— The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address —

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE -3- MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

☒ Responsive to communication(s) filed on

9/26/2000 & 3/21/2002

☐ This action is FINAL.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

## Disposition of Claims

☒ Claim(s) 1-32 is/are pending in the application.

Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

☐ Claim(s) \_\_\_\_\_ is/are allowed.

☒ Claim(s) 1-32 is/are rejected.

☐ Claim(s) \_\_\_\_\_ is/are objected to.

☐ Claim(s) \_\_\_\_\_ are subject to restriction or election requirement

## Application Papers

☐ The proposed drawing correction, filed on \_\_\_\_\_ is ☐ approved ☐ disapproved.

☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119 (a)-(d)

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119 (a)-(d).

☐ All ☐ Some\* ☐ None of the:

☐ Certified copies of the priority documents have been received.

☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.

☐ Copies of the certified copies of the priority documents have been received

in this national stage application from the International Bureau (PCT Rule 17.2(a))

\*Certified copies not received: \_\_\_\_\_

## Attachment(s)

☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 2+3

☐ Interview Summary, PTO-413

☐ Notice of Reference(s) Cited, PTO-892

☐ Notice of Informal Patent Application, PTO-152

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Other \_\_\_\_\_

Office Action Summary

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1. This Office action is responsive to the filing of the instant application with attached Information Disclosure Statement (Paper No. 2) on September 26, 2000. Additionally, a Supplemental Information Disclosure Statement (Paper No. 3) was filed March 21, 2002.

2. The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-32 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Tzu et al. in combination with one of ordinary skill in the requisite art's standard ability.

The essential requirements of the instant invention as claimed are drawn to a method for compensating for flare induced critical dimension changes in photolithography. This is accomplished through calculation of the flare variation over the area of a patterned mask that will be imaged and using mask biasing to largely eliminate the critical dimension changes caused by flare and its variations.

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Tzu et al. describe, teach and suggest the essential requirements of the instant invention as claimed. See specifically column 3, line 8 - column 5, line 3 wherein the methods of optical proximity correction described in the patent are set forth and clearly explained. Although this teaches the broad scope of the protection sought, it is not clear whether or not specific language is utilized within the metes and bounds of the patent to anticipate "mask biasing" and whether or not flare variation is actually calculated. However, one of ordinary skill in the requisite art at the time the invention was made in possession of Tzu et al. would have found it prima facie obvious to compensate for flare induced critical dimension changes in photolithography through measurement of the mask pattern and altering the critical dimensions on the mask to largely eliminate the variations in flare throughout the mask to be used in the imaging process. This is motivated by the skilled artisan wanting to obtain the highest precision mask possible for the intended function of photolithography.

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher Young, whose telephone number is (703) 308-2984. The examiner can normally be reached on Monday through Friday from 8:30 to 5:00.

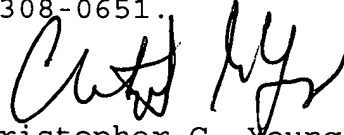
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Huff, can be reached on (703) 308-2464. A Fax communication that is for a non-final fax should be sent to (703) 872-9310. An after final fax should be sent to (703) 872-9311.

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Any inquiry of general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0651.

A handwritten signature in black ink, appearing to read 'C. Young', is written over the typed name.

Christopher G. Young  
Primary Examiner  
Art Unit 1756

C. Young:cdc  
August 22, 2002